

Annual Mammal Survey

2003

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Abstract

Annual mammal surveys are used as an index to species distribution and abundance. For the 2003 Annual Mammal Survey, numbers of black bears, bobcats, coyotes, fisher, and gray wolves per respondent were above long-term averages. Numbers of American martens, badgers, gray fox, jack rabbits, red fox, and river otters per respondent were below long-term averages. Long-term averages represent observations over the sixteen-year period of 1987-2002. Additionally, responses by field personnel in the 2003 Annual Mammal Survey decreased 3.5% from the 2002 level.

Methods

Wildlife Survey materials were sent to regional land leaders with the instruction to distribute the survey forms to all field personnel in their region. The annual Mammal Survey was sent out with the Ten-Week Brood Survey. Field personnel were asked to record the number of ten mammal species, namely, American martens, badgers, black bears, coyotes, fishers, gray foxes, gray wolves, jack rabbits, river otters, and red foxes, observed by them while doing normal field operations during the past year. Field personnel were asked to report live sightings as well as road kills. All species have appeared on the annual mammal survey since 1987 except for gray wolves, which were added in 1997. Numbers per respondent were used because the number of observers changes from year to year. The number of respondents, however, underestimates the number of observers because field personnel did not fill out the survey if they sighted none of the mammals listed. Long-term averages are based on observations from the sixteen-year period of 1987-2002.

Results

One hundred thirty six (136) surveys contained observations of mammals in 2003. Since 1987, respondents have averaged 199 surveys per year. The number of surveys returned in 2003 represents a 3.5% decrease from the 2002 response of 141 surveys.

American Marten

No American marten sightings were observed in 2003. Since 1987, on average, 2.2 American martens have been observed and reported per year. No American marten were seen in 2003, the long-term average is 0.012 per respondent (Figure 1).

Badger

Thirty-four field personnel observed 68 badgers in 2003. Forty-one (41) observations were live sightings and 27 observations were road kills. Badgers per respondent numbered 0.5 in 2003, which is a 24% decrease from the long-term average of 0.66 (Figure 2).

Black Bear

Seventy-two field personnel observed 332 black bears in 2003. Three hundred and six (306) observations were live sightings and 26 were road kills. Black bears per respondent numbered 2.44 in 2003, which is above the long-term average of 2.42 black bears per respondent (Figure 3). Black bear observations increased from 1991-1996, decreased from 1997-1999, increased

again during 2000, decreased from 2001-2002 and increased just above the long-term average in 2003.

Bobcat

Eleven field personnel observed 20 bobcats in 2003. Eighteen (18) observations were live sightings and 2 were road kills. Bobcats per respondent numbered 0.15 in 2003, which is well above the long-term average of 0.09 bobcats per respondent (Figure 4). Bobcat observations per respondent, have been above the long-term average since 1999.

Coyote

Ninety-four personnel observed 405 coyotes in 2003. Three hundred (325) were live sightings and 80 were road kills. Coyotes per respondent numbered 2.98, which is a 36% increase from the long-term average of 2.19 coyotes per respondent (Figure 5).

Fisher

Fifty-two field personnel observed 129 fishers in 2003. One hundred forty nine (110) were live sightings and 19 were road kills. Fishers per respondent numbered 0.95 in 2003, which is above the long-term average of 0.87 fishers per respondent (Figure 6). Fisher observations per respondent have remained above the long-term average since 1992.

Gray Fox

Thirty-two field personnel observed 55 gray foxes in 2003. Thirty-five (35) were live sightings and 20 were road kills. The number of gray fox observed per respondent in 2003 was 0.40, compared to the long-term average of 0.42 gray fox per respondent (Figure 7). Gray fox observations dropped well below the long-term average between 1997 and 1999, generally returned to the average from 2000-2001, and dropped below the long-term average from 2002 and 2003.

Gray Wolf

Thirty-one field personnel observed 96 gray wolves in 2003. Eighty-nine (89) were live sightings and 7 were road kill. Gray wolves observed per respondent numbered 0.71 in 2003 more than double the long-term average of 0.29 (Figure 8).

Jack Rabbit

One field personnel observed 4 jack rabbits in 2003. All 4 were live sightings. This single observation represents a 33% increase in observations from 2002 (3 observations). Observations per respondent numbered 0.03 in 2003 compared to the long-term average of 0.04 jack rabbits observed per respondent (Figure 9).

Red Fox

One hundred and seven field personnel observed 500 red fox in 2003. Three hundred fifty five (355) were live sightings and 145 were road kills. Red fox observed per respondent was 3.68 compared to the long-term average of 4.72 red fox per respondent (Figure 10).

River Otter

Forty-nine field personnel observed 167 river otters in 2003. One hundred sixty (160) were live sightings and 7 were road kills. River otters observed per respondent in 2003 was 1.23, which is substantially below the long-term average of 2.32 otters per respondent (Figure 11). Otter observations have been below average since 1998.

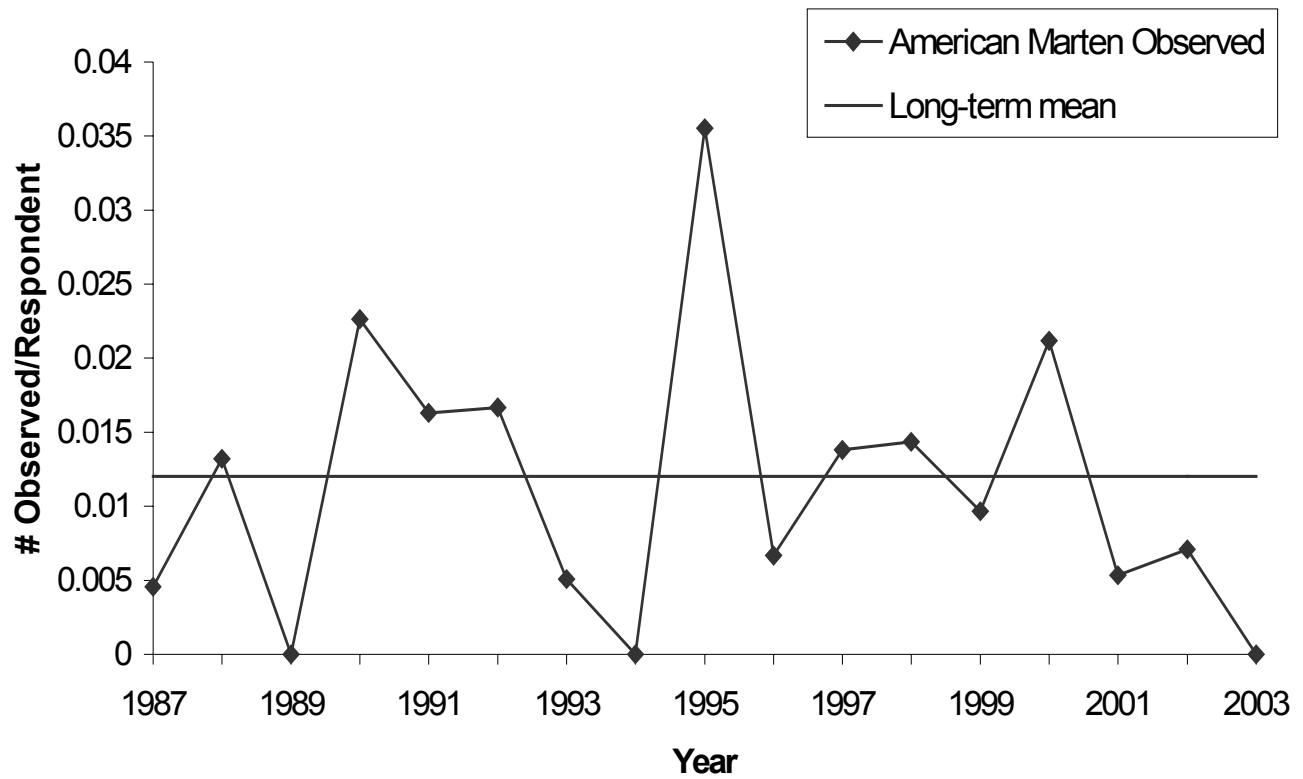


Figure 1. Number of American martens seen per respondent 1987-2003.

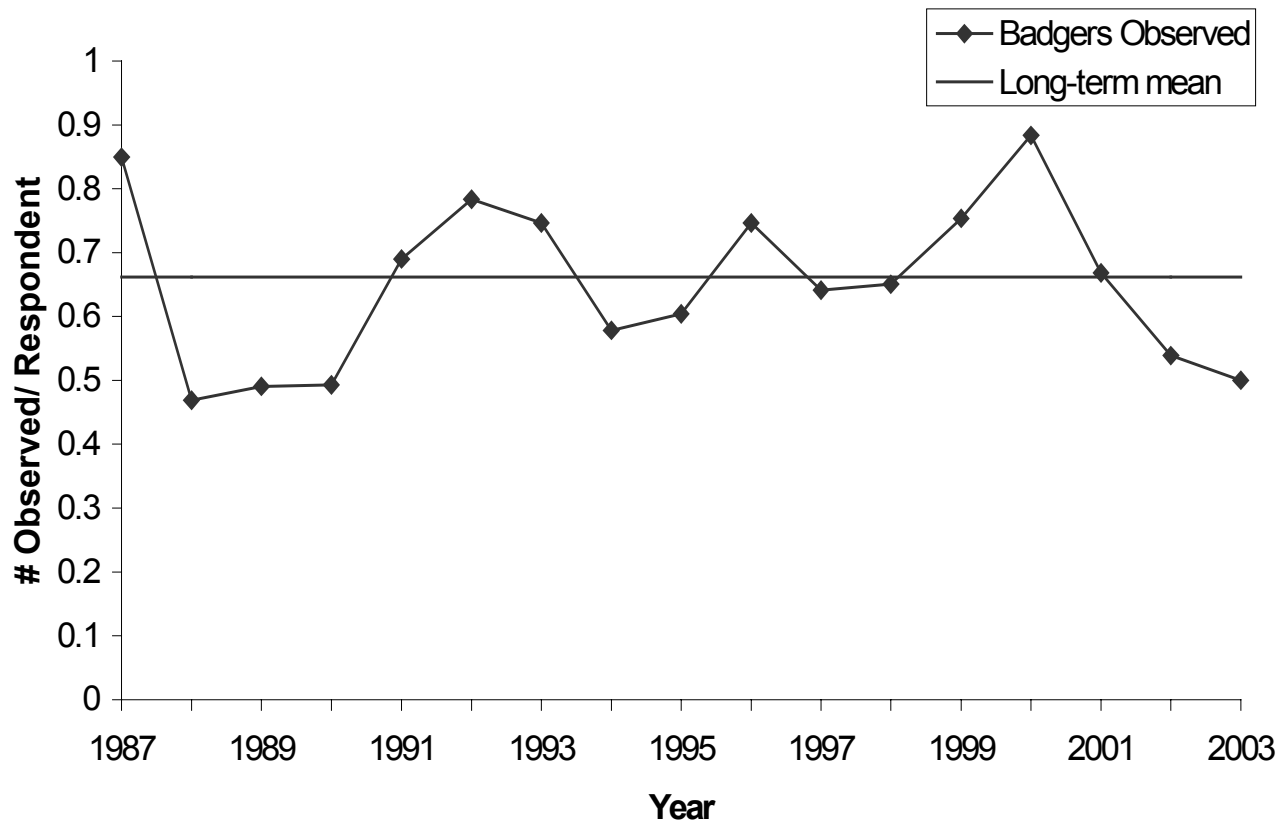


Figure 2. Number of badgers seen per respondent 1987-2003.

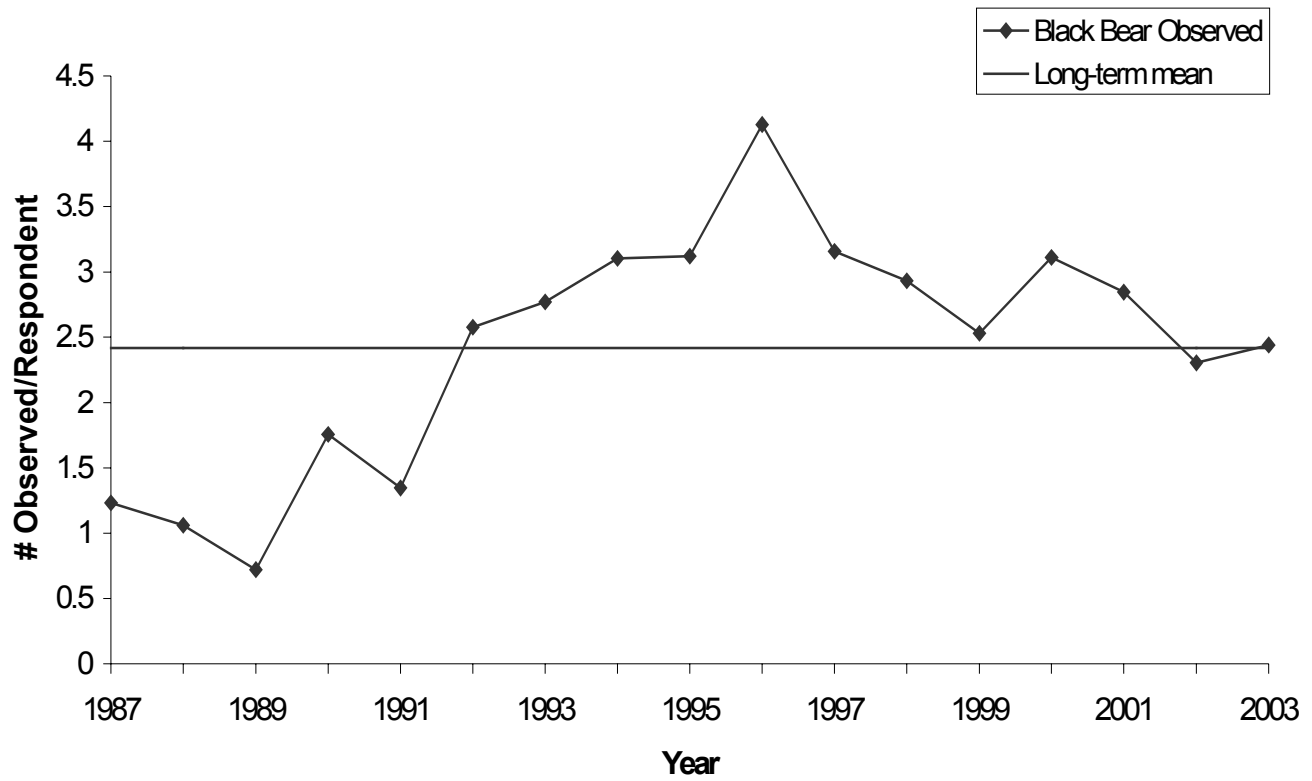


Figure 3. Number of black bears seen per respondent 1987-2003.

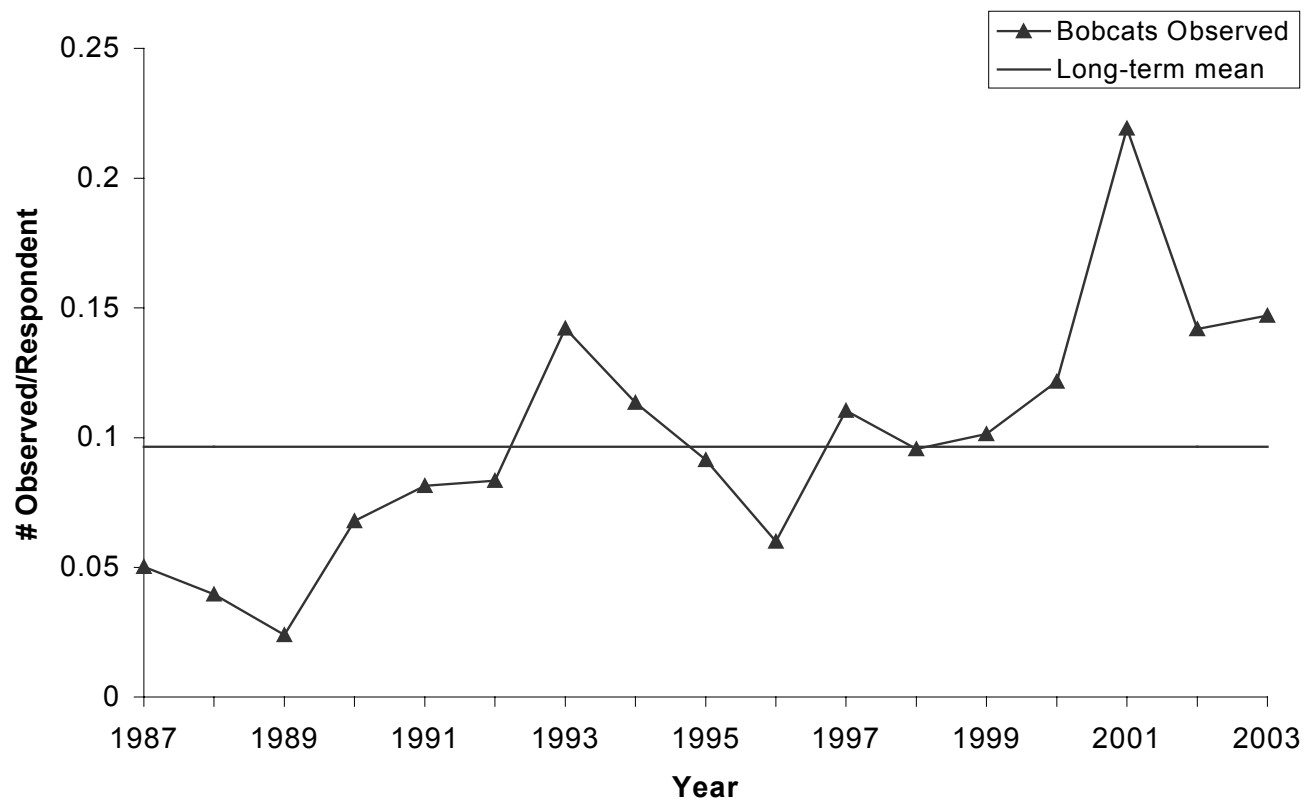


Figure 4. Number of bobcats seen per respondent 1987-2003.

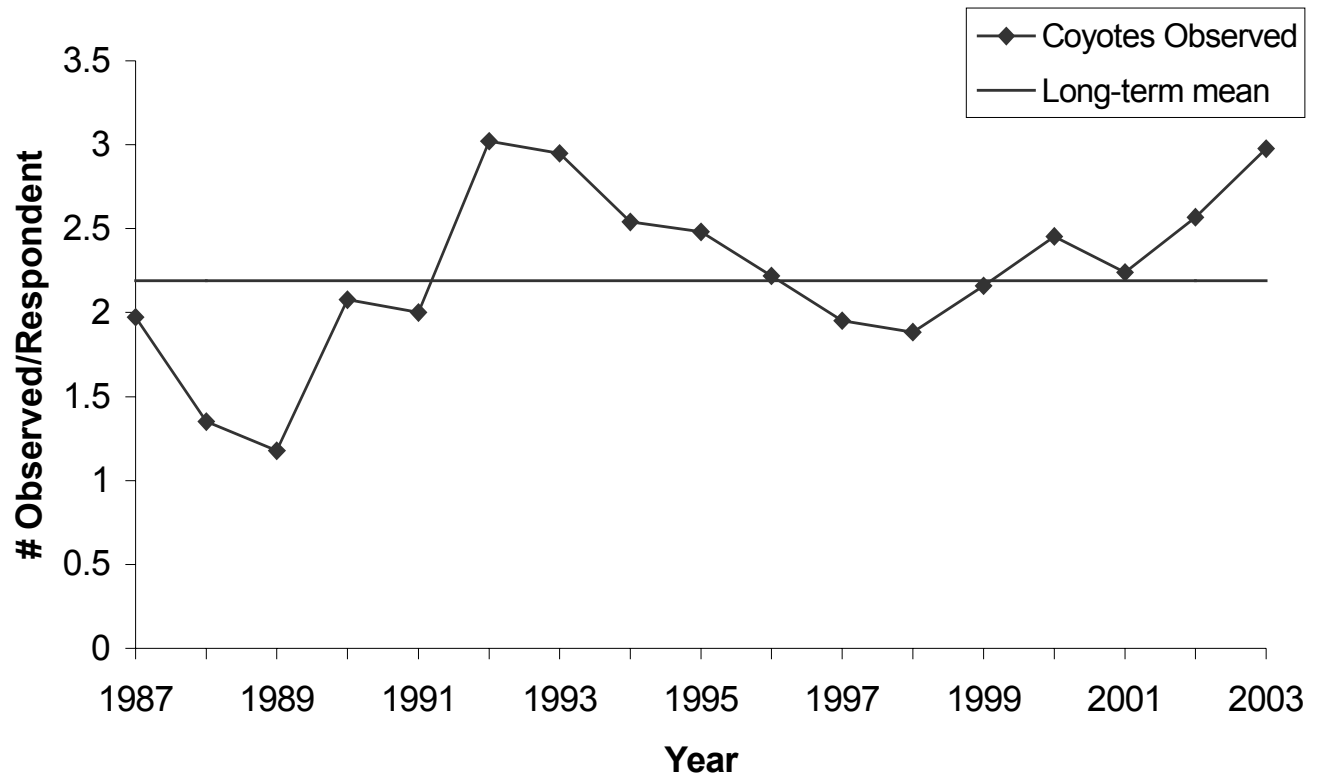


Figure 5. Number of coyotes seen per respondent 1987-2003.

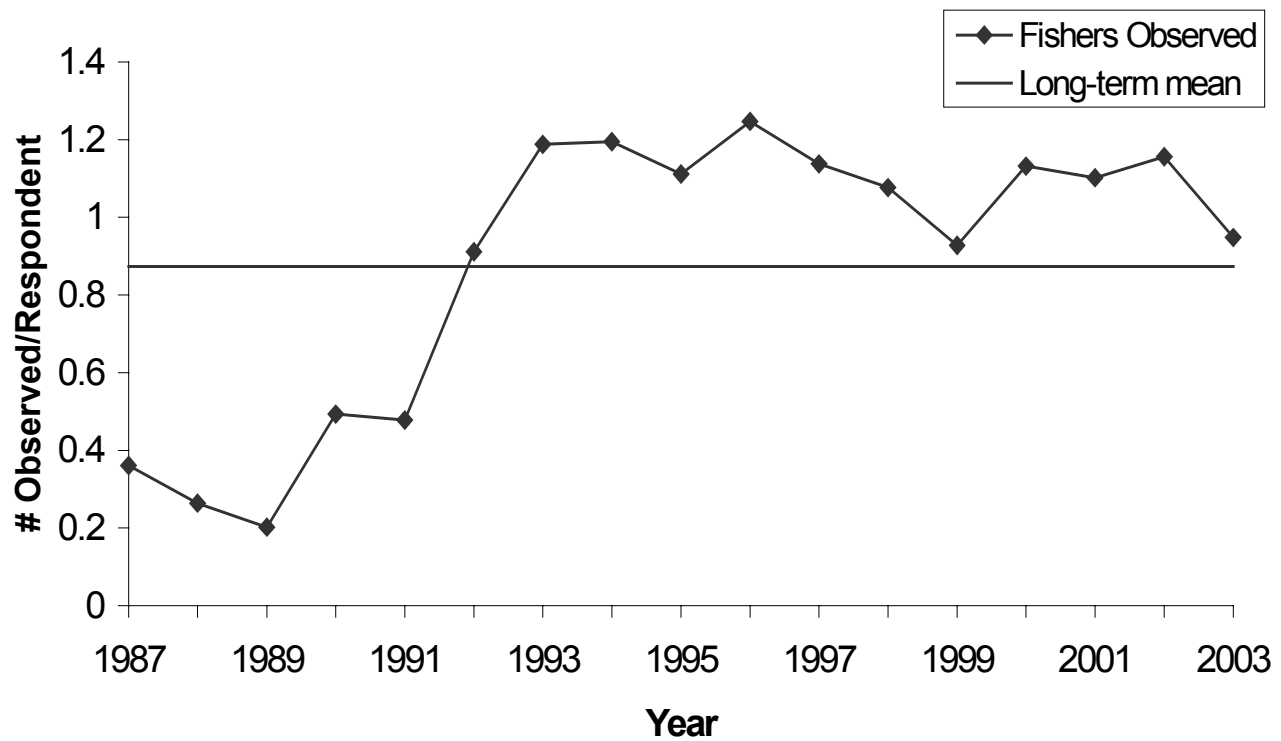


Figure 6. Number of fishers seen per respondent 1987-2003.

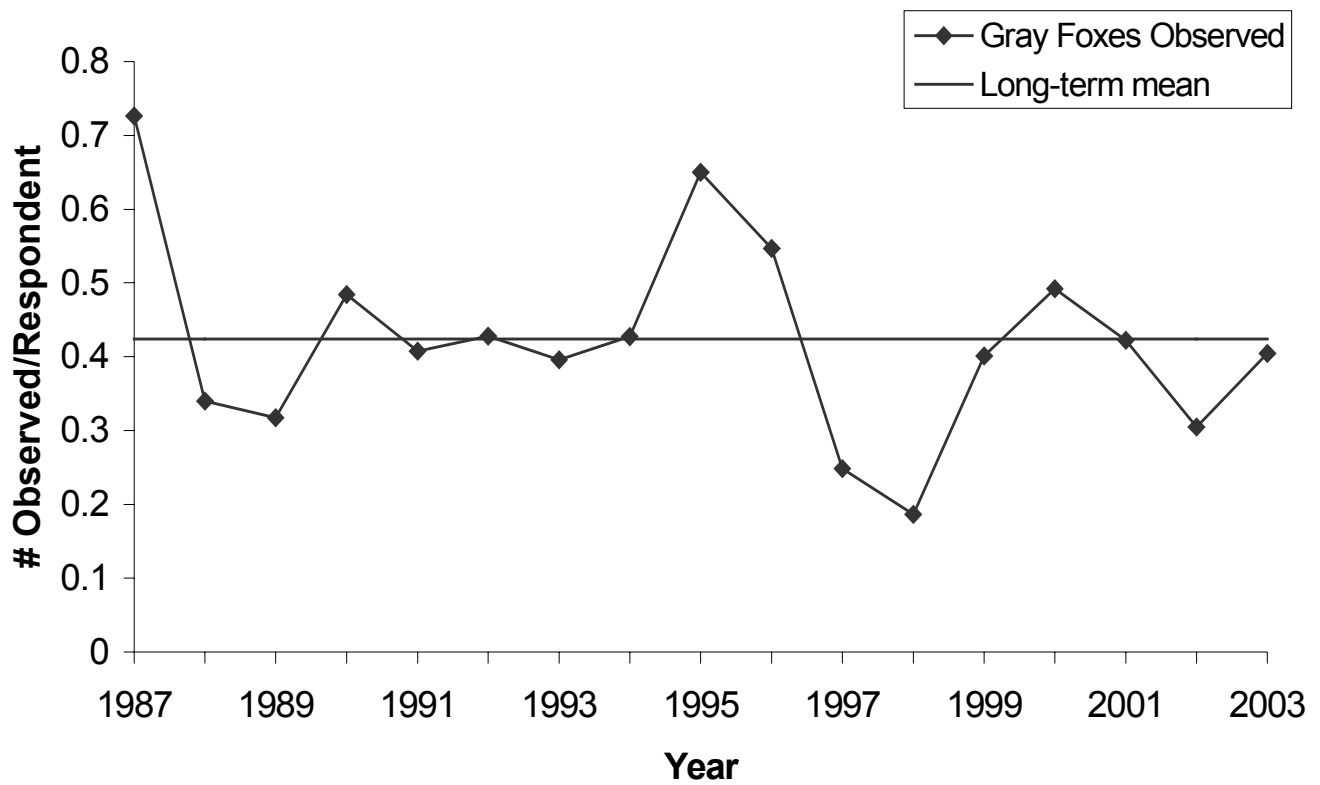


Figure 7. Number of gray foxes seen per respondent 1987-2003.

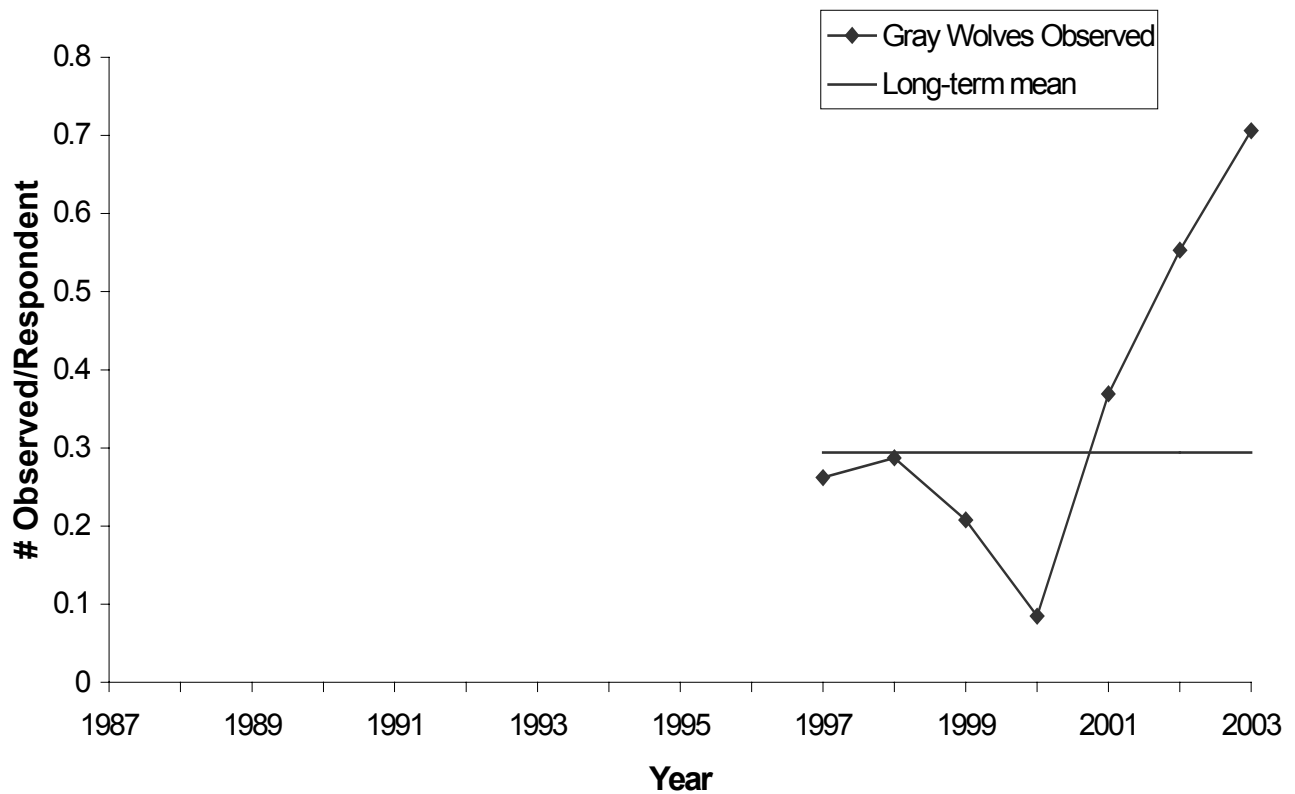


Figure 8. Number of gray wolves seen per respondent 1997-2003.

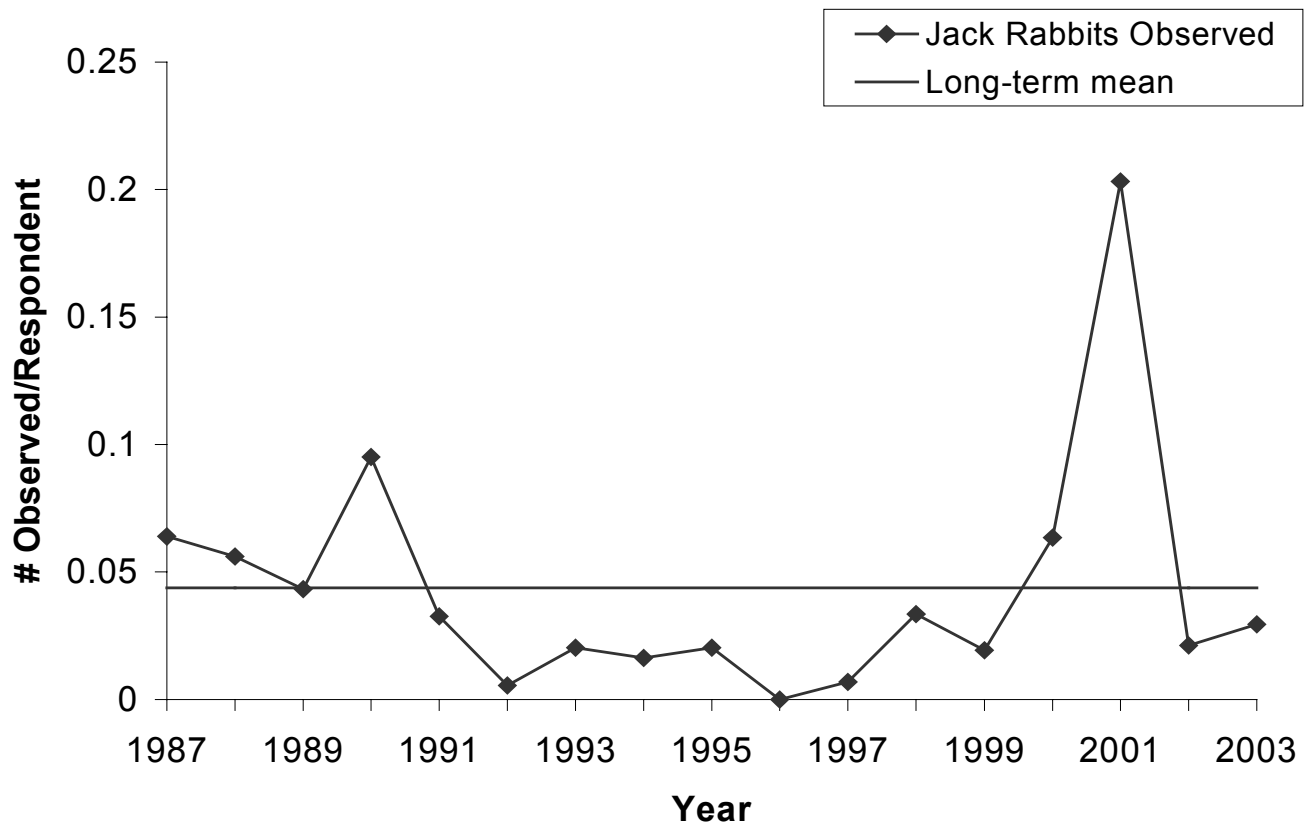


Figure 9. Number of jack rabbits seen per respondent 1987-2003.

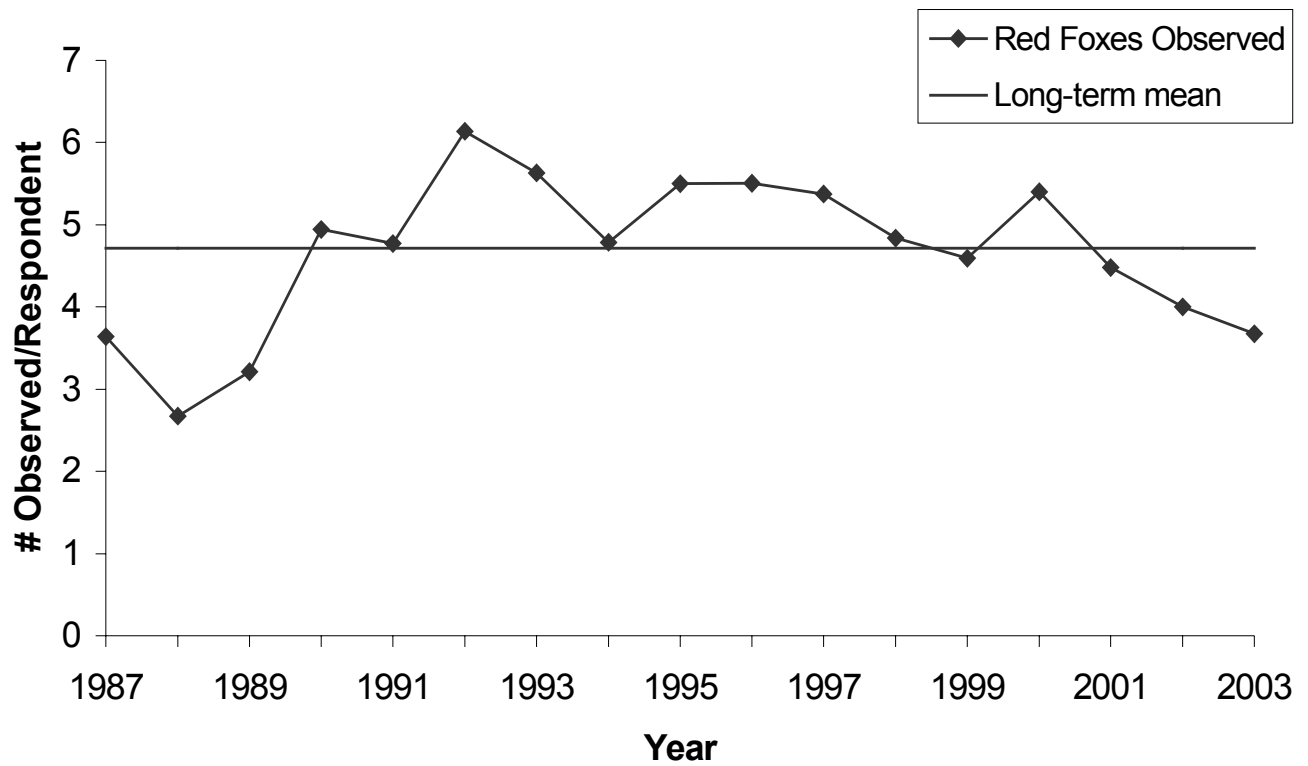


Figure 10. Number of red foxes seen per respondent 1987-2003.

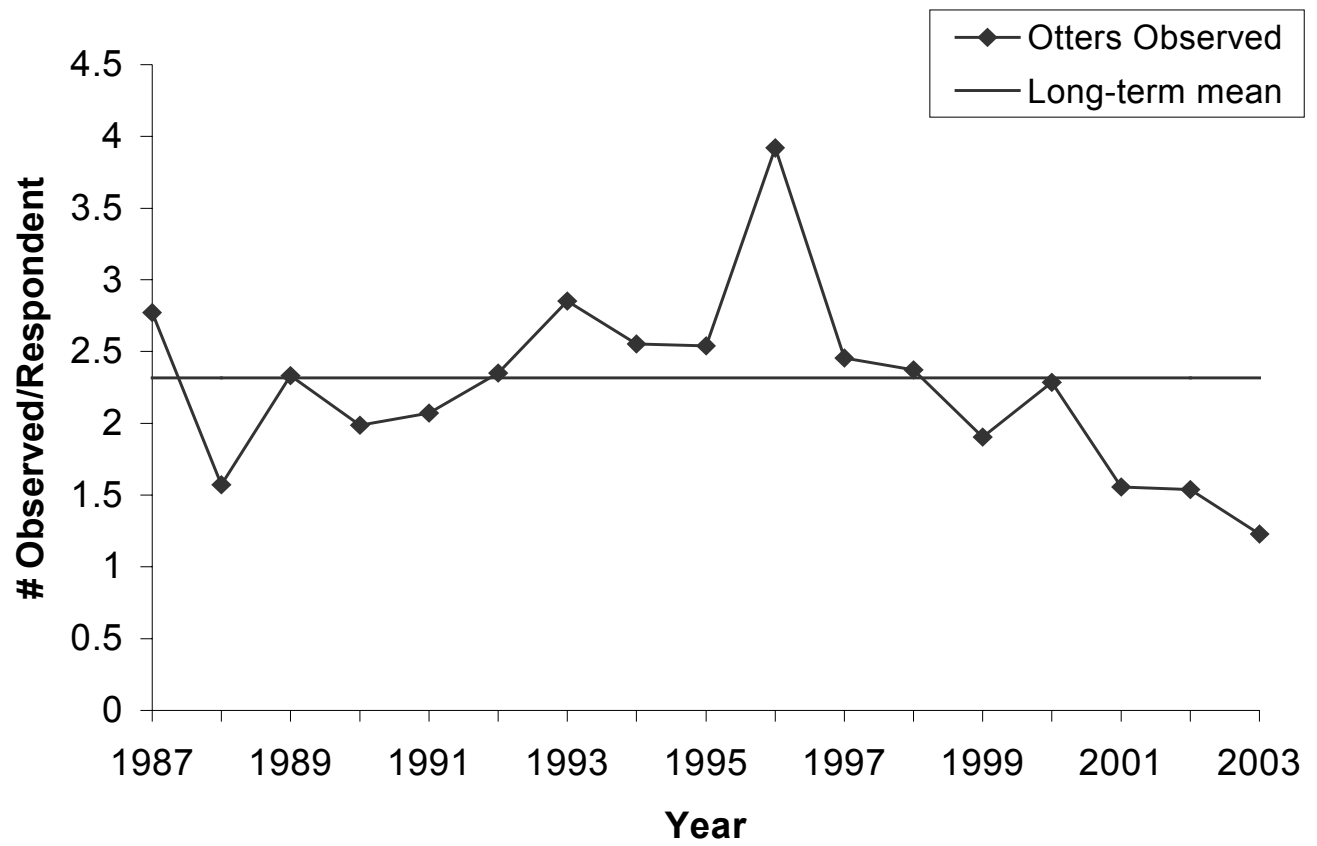


Figure 11. *Number of river otters seen per respondent 1987-2003.*